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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,066	02/04/2004	Rainer Gluck	00655P1236US	4530

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WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
500 W. MADISON STREET
SUITE 3800
CHICAGO, IL 60661

EXAMINER

LEO, LEONARD R

ART UNIT	PAPER NUMBER
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3744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/772,066

Applicant(s)

GLUCK, RAINER

Examiner

Leonard R. Leo

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 5,7,10,14,19,21,24,28,33,35,38 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,8,9,11-13,15-18,20,22,23,25-27,29-32,34,36,37 and 39-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (I-TO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 3744

DETAILED ACTION

Election/Restrictions

Applicant's election of the species IIA of Figure 1, the species of IB of Figure 1 and the species of claims 13, 27 and 41 in the reply filed on October 31, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 5, 7, 10, 14, 19, 21, 24, 28, 33, 35, 38 and 42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species being no allowable generic or linking claim.

Claim Objections

Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The claim is a dual recitation of claim 15, last indented paragraph.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3744

Regarding claims 8 and 36, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 8, 12, 29, 36, 40 and are rejected under 35 U.S.C. 102(b) as being anticipated by Ostbo. Ostbo discloses first end plate 4 having a fluid connector with a first plane and a second plane forming an acute angle, a second end plate 5, intermediate plates 8, and fluid line 7. Furthermore, the recitation of "drawn" is considered to be a method limitation in an apparatus claim, which bears no patentable weight in this instance. See MPEP 2113.

Regarding claims 8 and 36, as permissibly gleaned from the drawings, the acute angle is about 70 degrees.

Regarding claims 12 and 40, Ostbo discloses manifold 10 in the plates 8.

Claims 1, 8-9, 12, 29, 36-37, 40 and are rejected under 35 U.S.C. 102(b) as being anticipated by Tajima et al. Tajima et al discloses first end plate 111 having a fluid connector with a first plane (i.e. parallel to upper plate 103) and a second plane (i.e. coinciding with hole 111B) forming an acute angle, a second end plate 101, intermediate plates 3, 5, and fluid line 131, 133. Furthermore, the recitation of "drawn" is considered to be a method limitation in an apparatus claim, which bears no patentable weight in this instance. See MPEP 2113.

Art Unit: 3744

Regarding claims 8 and 36, as permissibly gleaned from the drawings, the acute angle is about 65 degrees.

Regarding claims 9 and 37, the recitation of "soldered" is considered to be a method limitation in an apparatus claim, which bears no patentable weight in this instance. See MPEP 2113.

Regarding claims 12 and 40, Tajima et al discloses manifold 67 in the plates 3, 5.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4, 6, 9, 15-18, 20, 23, 30-32, 34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ostbo in view of Armes.

Ostbo discloses all the claimed limitations except the fluid line extending over the end plate.

Armes discloses a plate heat exchanger comprising a first end plate 16 having a connector 12 with hole 46, a second end plate 18, intermediate plates 20, and fluid line 46' extending over the first end plate for the purpose of meeting plumbing requirements.

Since Ostbo and Armes are both from the same field of endeavor and/or analogous art, the purpose disclosed by Armes would have been recognized in the pertinent art of Ostbo.

Art Unit: 3744

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Ostbo fluid line extending over the first end plate for the purpose of meeting plumbing requirements as recognized by Armes.

Regarding claims 3, 17 and 31, the fluid line 46' of Armes is roughly parallel to the first end plate 16.

Regarding claims 4, 6, 18, 20, 32 and 34, Armes discloses auxiliary support 14 with an upstanding flange soldered to the first end plate 16 to support the fluid line 46'. Furthermore, the recitation of "soldered" is considered to be a method limitation in an apparatus claim, which bears no patentable weight in this instance. See MPEP 2113.

Regarding claims 9, 23 and 37, Armes discloses fluid line 46' is soldered to the connector 14. Again, the recitation of "soldered" is considered to be a method limitation in an apparatus claim, which bears no patentable weight in this instance. See MPEP 2113.

Claims 11, 13, 25, 27, 39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ostbo in view of Wright.

The device of Ostbo lacks a vent.

Wright discloses a plate heat exchanger comprising a first and second end plates 9 having a connectors, intermediate plates 8, fluid line 10, and vent 11 for the purpose of ease of maintenance.

Since Ostbo and Wright are both from the same field of endeavor and/or analogous art, the purpose disclosed by Wright would have been recognized in the pertinent art of Ostbo.

Art Unit: 3744

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Ostbo a vent for the purpose of ease of maintenance as recognized by Wright.

Regarding claims 13, 27 and 41, Wright discloses the connector is concentric with the manifolds defined by holes 2-5.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/772,066

Art Unit: 3744

Page 7

A handwritten signature in cursive script, reading "Leonard R. Leo".

LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3744

February 5, 2007